

Whereas, it appears by the new tariff that the protection afforded certain industries has been entirely removed, or reduced to such an extent as to seriously cripple their operations, and which will ultimately force them out of business; and

Whereas, this association has repeatedly placed itself on record regarding the importance, from a national standpoint, of maintaining in our midst those industries which may legitimately exist under fair protection against foreign products, thus benefiting our laboring classes and encouraging the investment and operation of capital in Canada; and

Whereas, it has been frequently affirmatively demonstrated at general elections that the desire of the people is to maintain a tariff which will make our interests paramount to those of foreigners, and at no general election has the abandonment of that policy been the issue; and

Whereas, no less than \$200,000,000 of additional capital has been invested in manufacturing enterprises in Canada since the adoption of a protective policy;

Resolved, that while recognizing the difficulties necessarily encountered by the Government in formulating a new tariff, this association is yet of the opinion that it is in the interests of the country that the principle of tariff protection should be observed in order to retain and maintain within our borders those industries which would otherwise be seriously affected, if not completely annihilated, by an abandonment of that policy.

Whereas, it has been deemed by the Government advisable to embody in the new tariff a clause by which the Governor-in-council is empowered to place any article on the free list, or reduce the duty thereon, whenever, in his opinion, there exists what is termed by the Act a "trust, combination or association" between manufacturers of any particular line of goods;

Resolved—(1) That in the opinion of this association such legislation is class legislation of an unfair character, in that it is aimed at manufacturers only, against which this association enters its protest, while other associations with similar objects are untouched

(2) That in the opinion of this association such legislation ought not to be embodied in the tariff, because the decisions arrived at under it might be the occasion of great injury to those who had no connection whatever with any association of the character described

(3) That such legislation is a violation of a fundamental principle of the constitution in taking away from unprejudiced judicial tribunals the interpretation and enforcement of the law, and in conferring that power on a political tribunal, namely, the executive of the Government.

(4) That this association urge the Government to accordingly amend this clause of the tariff.

Another resolution was passed, and referred to the executive for adjustment, requesting the Government not to increase the old tariff duty on soft coal screenings.

The election of officers resulted as follows: President, D. W. Karn, first vice-president, J. F. Ellis; second vice-president, James Kendry, treasurer Geo. Booth; secretary, J. J. Cassidey. Chairmen of Committees—Executive committee, R. W. Elliott; tariff committee, W. K. McNaught; representatives to Toronto Industrial Exhibition Association, George Booth, R. W. Elliot, W. K. McNaught, A. E. Kemp, J. J. Cassidey.

TESTING FIBRES AND FABRICS.

It frequently happens that a manufacturer of textiles or one of his subordinates finds it necessary to know the exact materials in a certain sample of yarn or cloth. It may be that it is desired to make a cloth like a sample, it may be that it is required to learn what are the different fibres or yarns in a sample; it may be that a test is desired in order to learn whether a sample is made of the best of stock, or whether inferior goods are being passed off for the genuine articles. It is also necessary in some of the operations of manufacture to know exactly what a stock is as to its material, before a process can be entered into, for the process, which might be

all right on one material, might absolutely destroy a material differing in nature and qualities. We wish to state in a general way some of these various tests that are of an found necessary, which will answer all the general purposes of manufacture.

One broad distinction that is sometimes required is that between animal and vegetable fibres. To distinguish between these qualities of stock we boil them in caustic potash lye. The animal fibre, whether silk or wool, will be dissolved, while the vegetable, cotton or linen will remain. If the whole weight is taken before boiling and the weight of the residue taken after boiling and drying, the difference will show the exact proportion of animal fibre that was present in the sample. The difference and proportionate quantities of cotton and wool present in a mixture of the two may be determined by putting the sample in a concentrated solution of sodium sulphide. This solution will eat out the wool and it may be washed away, when a comparison of weights as before will show the exact proportions of each fibre present. These fibres can be tested with greater ease and accuracy if they have not been treated with any dyestuffs. This, however, is not so usual in ordinary practice. If the sample is undyed, the sample may be bathed in carbazotic or picric acid. This is a coloring material that does not adhere to a vegetable fibre, and hence if cotton or linen is present it will remain its natural color and the silk or wool will be changed to a yellow, more or less pronounced. Even where the samples are colored there will be a difference in the shades of vegetable and animal fibres after this test, which the microscope will reveal if the naked eye will not.

Besides these methods of testing there is the microscope, which will show beyond a doubt the presence of any foreign materials in a sample. The threads should be taken out of the fabric under water, and subjected to the lens of a microscope magnifying two or three hundred diameters. If woollen fibres are present they will be cylindrical and covered with scales; if cotton are present, they will have a ribbon-like appearance, being very thin on the edges and wider on the flat surface; if linen is in the fabric the fibres will be round, but they will have, here and there, throughout their length, full or swollen places. Silk fibres are straight, plain and cylindrical, with none of the peculiarities of the linen or wool. There are various ways in which the material may be treated so as to cause the differences to be more marked, but in any case with the aid of the microscope an unerring judgment may be formed as to the exact composition and quality of the fibre present.

Suppose now it is desired to determine between vegetable fibres themselves. We have a fabric made up of linen and cotton, and want to get some idea of the proportions of each. Treat the sample with a strong potash solution, and the linen fibre present will be colored a deep yellow, while the cotton will be only slightly affected. A careful examination of the sample, when this has been done, will give a fairly accurate idea as to the quantities of each fibre that are present. Take another sample and use olive or rape seed oil instead of potash, and result will be that the fabric will be spotted or striped; this is because the linen and cotton appear dissimilar after they have come in contact with the oil. The linen threads that are present become at once transparent, while the cotton remains opaque. Put a dark colored sheet of paper back of the sample so treated, and the difference will be clearly evident, for the transparency of the linen thread will show the dark-colored background quite clearly, while the cotton will remain white.

If it is desired to get at a more accurate idea of the proportions of cotton and linen or wool present in the sample, the following method will answer very well. Place the sample in a mixture made up of two parts of nitre or saltpetre (KNO_3) and three parts of sulphuric acid, and allow it to remain there for ten minutes. Wash and dry it and put it in an ether solution containing a little alcohol, and the result will be that the linen fibres, if any are present, will remain uninjured, while the cotton will be entirely dissolved. The wool, if present, will also remain with the linen. In this way, if weights are carefully taken, the amount of cotton in the sample can be easily determined. Then in order to get at the proportions of wool and linen in the sample the test for animal and vegetable fibres given above will serve the purpose. These tests are all quite